IN THE CLAIMS:

1. (Currently Amended) A reaction system comprising:

~~a)~~ an A component including a polyisocyanate component having a number averaged isocyanate functionality of at least 1.8 to 4.0; ~~and~~

~~b)~~ a B component including an organic isocyanate-reactive component comprising at least fifty (50) percent by weight, based on the total weight of the organic isocyanate-reactive component, of an organic polyol having at least one aliphatic tertiary amine group, a number averaged hydroxyl equivalent weight of greater than 70 to less than 450, and a number averaged molecular weight of between 240 and 500,~~; and~~

~~c)~~ an isocyanate-reactive foaming agent ~~consisting of~~ including water [[,]] and optionally a carboxylic acid, and an additive component ~~acids, or mixtures thereof, wherein the reaction system is separated into an A component containing the polyisocyanate component and a B component containing the isocyanate-reactive component and the isocyanate-reactive foaming agent, and wherein the A component and B component are blended to achieve an Index of 0.8 to 1.3~~.

2. (Original) The reaction system according to claim 1 wherein the polyisocyanate component is an aromatic organic polyisocyanate.

3. (Previously Presented) The reaction system according to claim 2 wherein the aromatic organic polyisocyanate is a polymethylene polyphenylene polyisocyanate, and wherein the organic polyol having at least one aliphatic tertiary amine group comprises at least seventy (70) percent by weight of the total weight of the organic isocyanate-reactive component.

4. (Original) The reaction system according to claim 1 wherein the organic isocyanate-reactive component further comprises a polyoxyethylene diol having a number averaged molecular weight of about 190 to about 800.

5. (Original) The reaction system according to claim 4 wherein the organic isocyanate-reactive component further comprises a propoxylated trimethylolpropane having a number averaged molecular weight of about 700 to about 1400.

6. (Original) The reaction system according to claim 1 wherein the reaction system further comprises less than fifteen (15) percent by weight of an internal mold release agent, based on the total weight of the reaction system.

7. (Previously Presented) A reaction system for producing unreinforced molded articles comprising:

a) a polyisocyanate component comprising at least one organic polyisocyanate having a free organically bound isocyanate group concentration of between about 5% to about 50% by weight of the total weight of the polyisocyanate component;

b) an organic isocyanate-reactive component comprising at least fifty (50) percent by weight, based on the total weight of the organic isocyanate-reactive component, of an organic polyol having at least one aliphatic tertiary amine group and a number averaged molecular weight from greater than 240 to less than 500; and

c) an isocyanate-reactive foaming agent consisting of water and at least one carboxylic acid, wherein the water constitutes a least 10% by weight, based on the total weight of the isocyanate-reactive foaming agent, wherein the reaction system is separated into an A component containing the polyisocyanate component and a B component containing the isocyanate-reactive component and the isocyanate-reactive foaming agent, and wherein the A component and B component are blended to achieve an Index of 0.8 to 1.3.

8. – 9. (Cancelled)

10. (Previously Presented) The reaction system according to claim 7 wherein the organic polyisocyanate is a polymethylene polyphenylene polyisocyanate.

11. (Original) The reaction system according to claim 7 wherein the organic polyol has a number averaged hydroxyl equivalent weight of greater than 80 to less than 150 and greater than 1.7 ether linkages per molecule on a number averaged basis.

12. (Original) The reaction system according to claim 11 wherein the organic isocyanate-reactive component further comprises a polyoxyethylene diol with a number averaged molecular weight of about 190 to about 800.

13. (Original) The reaction system according to claim 11 wherein the organic isocyanate-reactive component further comprises a propoxylated trimethylolpropane having a number averaged molecular weight of about 700 to about 1400.

14. (Original) The reaction system according to claim 7 wherein the carboxylic acid is selected from the group consisting of oleic acid, ricinoleic acid, linoleic acid, linolenic acid, adipic acid, fumaric acid, maleic acid, succinic acid, and sebacic acid.

15. (Original) The reaction system according to claim 7, wherein the reaction system further comprises less than fifteen (15) percent by weight of an internal mold release agent, based on the total weight of the reaction system.

16. (Currently Amended) A process for preparing [[a]] unreinforced molded foam having a specific gravity range from 0.5 to 0.7 comprising ~~the steps of~~:

~~a) providing a reaction system comprising: (i)~~ blending an A component and a B component to form a liquid reacting mixture, said A component including a polyisocyanate ~~component~~ having a number averaged isocyanate functionality of at least 1.8 to 4.0, ~~(ii)~~ said B component including an organic isocyanate-reactive ~~component~~ comprising at least fifty (50) percent by weight, based on the total weight of the organic isocyanate-reactive component, of an organic polyol having at least one aliphatic tertiary amine group and a number averaged hydroxyl equivalent weight of greater than 70 to less than 450, and ~~(iii)~~ an isocyanate-reactive foaming agent ~~consisting of~~ including water[[,]] and optionally a

carboxylic acid ~~acids, or mixtures thereof, wherein the reaction system is separated into an A component containing the polyisocyanate component and a B component containing the isocyanate-reactive component and the isocyanate-reactive foaming agent, and wherein the A component and B component are blended to achieve an Index of 0.8 to 1.3~~;

~~b) combining the reaction system to form a liquid reacting mixture;~~

~~c)~~ injecting the liquid reacting mixture into a mold; and

~~d)~~ allowing the liquid reacting mixture to foam and cure in the mold to form ~~an~~ said unreinforced molded foam~~,; and~~

~~e) removing the molded foam from the mold, said unreinforced molded foam having a specific gravity range from 0.4 to 0.8.~~

17. – 18. (Cancelled)

19. (Previously Presented) The process according to claim 16 wherein the mold contains a facing material.

20. (Cancelled)

21. (Currently Amended) The reaction system of claim 1, wherein at least 80 % of the foaming agent ~~agents consist solely of water,~~ is a carboxylic acid~~, or mixtures thereof~~.

22. (Currently Amended) The process according to claim 16, wherein preparing unreinforced molded foam includes preparing an unreinforced molded foam having a ~~the foam's~~ break strain to yield strain ratio [[is]] of at least about 1.25.

23. (Previously Presented) The reaction system according to claim 7 wherein the A component and B component are blended to achieve an Index of 0.95 to 1.2.

24. (Previously Presented) The reaction system according to claim 7 wherein the organic polyol having at least one aliphatic tertiary amine group comprises at least eighty (80) percent by weight of the organic isocyanate-reactive component.

25. (Currently Amended)The process according to claim 16 wherein blending an A component and a B component ~~providing a reaction system~~ includes providing a B component including an unsaturated fatty carboxylic acid foaming agent having at least 12 carbon atoms per carboxyl group~~a reaction system that has a catalytic effect without the use of an isocyanurate catalyst or a conventional catalyst~~.

26. (Currently Amended)The process according to claim 16 wherein the A component and the B component are free from a tertiary amine ~~the process for preparing the unreinforced molded foam proceeds without the use of an isocyanurate catalyst or a conventional~~ catalyst.

27. (Currently Amended) The process according to claim 26, wherein blending an A component and a B component includes blending a B component wherein at least 80 % of the foaming agent ~~includes a carboxylic acid and the~~ is a carboxylic acid ~~provides a catalytic effect in the process~~.

28. (Currently Amended) The process according to claim 16, wherein blending an A component and B component includes blending the A component with a B component that includes at least fifty (50) percent by weight, based on the total weight of the organic isocyanate-reactive component, of an organic polyol having at least one aliphatic tertiary amine group, wherein the alcohol groups of said organic polyol are predominantly secondary aliphatic alcohol groups ~~the foaming agents consist solely of water, carboxylic acid, or mixtures thereof~~.

29. (New) The reaction system of claim 1 wherein the organic polyol having at least one aliphatic tertiary amine group is formed by the addition of ethylene oxide onto an amine initiator followed by the addition of propylene oxide thereto, such that on average there are at least two oxyethylene units and at least 1.5 ether linkages per molecule.

30. (New) The reaction system of claim 1 wherein the additive component is free of any catalysts or compounds that react with the polyisocyanate component.